

FD910R

900 Series Addressable Reflective Beam Detector + Isolator

General

The FD910R provides an integral, loop powered, analogue addressable reflective beam detector covering up to 100 meters. It operates with 900 series protocol with the 1200/2000 series fire panels. It also has a built in 20D negative bi-directional short circuit isolator.

The product

The FD910R consists of an infrared transmitter and receiver in one single compact housing. The infrared signal is reflected by a prism and analysed for smoke presence. It is particularly designed to be use where point smoke detectors are not practical due to height or inaccessibility. The unit is loop powered for connection to the 1200/2000 series fire panels. It utilizes the 900 series protocol. The FD910R has a range of 50-100 m.

Installer friendly

Wiring is restricted to a minimum as the transmitter and receiver are in the same housing. The detector is very easily aligned by means of checking the red and green LED's. A course "Prism Find" and then "Alignment Mode" fine-tune ensures optimum operation. Two adjustment thumb wheels on two sides of the detector provide mechanical alignment. Adjustment is achievable in both axes. The low power consumption of the units allows multiple sets to be powered on the same loop without compromising the system's autonomy.

Reducing false alarms

Alarm thresholds of 25%, 35% and 50% can be selected to suit the environment. If the received infrared signal reduces to below the selected threshold and is present for approximately 10 seconds, the fire condition is signalled to the fire panel. If the infrared beam is obscured rapidly to a level of 90 % or greater for approximately 10 seconds the fault condition is signalled. This condition can be entered in a number of ways, for example, an object being placed in the beam path, transmitter failure, loss of the prism, or sudden misalignment of the detector. The detector monitors long term degradation of signal strength caused by component ageing or build up of dirt on optical surfaces. The unit is easily tested using the graduated obscuration test card supplied.



Details

- Loop Powered
- 900 series protocol
- Area coverage up to 600 m² per unit
- Range from 50 - 100 m
- Up to ceiling heights of 25 m
- Low current consumption
- 3 selectable alarm thresholds
- Self check and automatic contamination compensation
- Automatic discrimination between fire and fault
- Retro operation through prism
- Vertical or horizontal mount
- Easy wiring and unique alignment
- Microprocessor controlled
- Conforms to BS 5839 part 5 and EN54

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Technical specifications

Electrical

Operating voltage	17 to 28 VDC
Current consumption	5 mA

Physical

Physical dimensions	130 x 210 x 120 mm (W x H x D)
Net weight	670 g
Colour	Grey

Environmental

Operating temperature	-20 to +55°C
Environment	Indoor
IP rating	IP50

Standards & regulation

Certification	EN54-12
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Supply voltage

17 - 28 VDC

Range

50 - 100 m

Current consumption

Quiescent	5 mA
Alarm	9 mA
Fault	5 mA
Alignment mode	17 mA

Optical wave length

880 nm

Operating temperature

-20°C to 55°C

Size

210 x 130 x 120 mm

Weight

670 g

IP rating

IP50

Construction

Flame retardent ABS

Colour

Gray-black

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